

I claim:

1.

1 A side discharge bulk material transport container comprising:
2 a frame including a pair of spaced apart fore and aft extending
3 beams, a plurality of A-frame members attached to the pair of spaced apart fore
4 and aft extending beams, a left floor plate connected to the plurality of A-frame
5 members, a right floor plate connected to the plurality of A-frame members and
6 cooperating with the left floor plate to form an apex that is above and parallel to
7 the pair of spaced apart fore and aft extending beams, and wherein the left floor
8 plate extends downwardly and outward from the apex to a left bottom side and
9 the right floor plate extends downwardly and outward from the apex to a right
10 bottom side;
11 a front end wall connected to the frame, the left floor plate and the
12 right floor plate;
13 a rear end wall connected to the frame, the left floor plate and the
14 right floor plate;
15 a left side wall including a left upper door extending from the front
16 end wall to the rear end wall, a left upper door bottom edge, a left upper door top
17 edge pivotally attached to the front end wall and the rear end wall for pivotal
18 movement between a generally vertical left upper door closed position and a left
19 upper door open position in which the left upper door extends downward and
20 laterally outward from the left upper door top edge, a left lower door extending
21 from the front end wall to the rear end wall, a left lower door top edge, a left lower
22 door bottom edge pivotally attached to the left bottom side for pivotal movement

23 between a generally vertical left lower door closed position and a left lower door
24 open position in which the left lower door extends downward and laterally outward
25 from the left lower door bottom edge;

26 a right side wall including a right upper door extending from the front
27 end wall to the rear end wall, a right upper door bottom edge, a right upper door
28 top edge pivotally attached to the front end wall and the rear end wall for pivotal
29 movement between a generally vertical right upper door closed position and a
30 right upper door open position in which the right upper door extends downward
31 and laterally outward from the right upper door top edge, a right lower door
32 extending from the front end wall to the rear end wall, a right lower door top edge,
33 a right lower door bottom edge pivotally attached to the right bottom side for
34 pivotal movement between a generally vertical right lower door closed position
35 and a right lower door open position in which the right lower door extends
36 downward and laterally outward from the right lower door bottom edge;

37 a left side upper hydraulic cylinder connected to the frame and to
38 the left side upper door for pivoting the left upper door between the left upper
39 door generally vertical left upper door closed position and the left upper door open
40 position;

41 a left side lower hydraulic cylinder connected to the frame and to the
42 left side lower door for pivoting the left lower door between the generally vertical
43 left lower door closed position and the left lower door open position;

44 a right side upper hydraulic cylinder connected to the frame and to
45 the right side upper door for pivoting the right upper door between the generally
46 vertical right upper door closed position and the right upper door open position;

47 a right side lower hydraulic cylinder connected to the frame and to

48 the right side lower door for pivoting the right lower door between the generally
49 vertical right lower door closed position and the right lower door open position;

2.

1 A cargo container comprising:
2 a frame;
3 a front end wall connected to the frame;
4 a rear end wall connected to the frame;
5 a left side wall including a left upper door extending from the front
6 end wall to the rear end wall and including a left upper door top edge pivotally
7 attached to the front end wall and the rear end wall for pivotal movement about a
8 left upper horizontal axis, a left lower door extending from the front end wall to the
9 rear end wall and including a left lower door bottom edge pivotally attached to the
10 frame for pivotal movement about a left lower horizontal axis;
11 a right side wall including a right upper door extending from the front
12 end wall to the rear end wall and including a right upper door top edge pivotally
13 attached to the front end wall and the rear end wall for pivotal movement about a
14 right upper horizontal axis, a right lower door extending from the front end wall to
15 the rear end wall and including a right lower door bottom edge pivotally attached
16 to the frame for pivotal movement about a right lower horizontal axis;
17 a cargo container floor including a floor apex extending from the
18 front end wall to the rear end wall and parallel to the left upper horizontal axis;
19 a left floor plate extending from the front end wall to the rear end
20 wall and from the floor apex downward and outward to the left side wall;
21 a right floor plate extending from the front end wall to the rear end

22 wall and from the floor apex downward and outward toward to the right side wall;
23 an upper left hydraulic cylinder connected to the front end wall and
24 the left upper door;
25 a lower left hydraulic cylinder connected to the front end wall and
26 the left lower door;
27 an upper right hydraulic cylinder connected to the front end wall and
28 the right upper door;
29 a lower right hydraulic cylinder connected to the front end wall and
30 the right lower door; and
31 a hydraulic control system for selectively supplying hydraulic fluid to
32 the upper left hydraulic cylinder, the lower left hydraulic cylinder, the upper right
33 hydraulic cylinder, and the lower right hydraulic cylinder.